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PKEPAPTTTKEPAPTTPKEPAPTTTKEPAPTTTKSAPTTPKEPAPTTPKEPAPTTPKKPAPTTPKKPAPTTPKEPAP
PAPTTPKEPTTTPKEPAPTTKSPAPTTPKEPAPTTTKSAPTTPKEPSPTTTKSPAPTTPK
TTTKEPSPTTPKEPAPTTKSAPTTTKRPAPTTTKSAPTTPKSPSPTTPK
                                                                                                                                                                                                                                                                                                                                                                     HSU70136 S041 bp mRNA linear PRI 29-SEP-1996
Human megakaryocyte stimulating factor mRNA, complete cds.
U70136
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Submitted (09-SB-1936) Genetics Institute, 87 CambridgePark Drive,
Cambridge, MA 0218-1938
Location/Qualifiers
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Turner, K.J., Fitz, L.J., Temple, P., Jacobs, K., Larson, D.,

Turner, K.J., Fitz, L.J., Temple, P., Jacobs, K., Larson, D.,

Kriz, M.-J., Ferenz, C., Grobholz, J., Fraser, H., Bean, K.,

Norton, C.R., Gesner, T., Bhatia, S., Kriz, R., Hewick, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Purification, Biochemical Characterization, and Cloning of a Novel Megakaryocyte Stimulating Factor that has Megakaryocyte Colony
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Elsevier Science Publishers B.V. (1993)
3 (bases 1 to 5041)
1 (bases 1 to 5041)
Leary, R.J., Fitz, L.J., Temple, P., Jacobs, K., Larson, D.,
Leary, A.C., Kelleher, K., Giannotti, J., Calvetti, J., Fitzgerald, M.,
Kriz, M.-J., Ferenz, C., Grobholz, J., Fraser, H., Bean, K.,
Norton, C.R., Gesner, T., Bhatla, S., Kriz, R., Hewick, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /ceIl type="PHA and PMA activated human peripheral blood mononuclear cells"
      1366 ABPTyrTyrAlaPheSerLysABpGlnTyrTyrAsnIleAspValProSerArgThrAla 1385
                                               1087 GATTACTATGCCCTTTCTAAAGATCAATACTATAACATCGACGTGCCAAGTAGGACAGCA 1146
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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lood 78 (Suppl. 1), 279 (1991)

( (base 1 to 5041)

lerberg, D. M., Fitz, L.J., Temple, P., Giannotti, J., Murtha, P., fitzgerald, M., Scaltreto, J., Kelleher, K., Preissner, K., Kriz, R., facobs, K. and Turner, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A Comparison of Vitronectin and Megakaryocyte Stimulating Factor (in) Preissner K.T., Rosenblatt, S., Kost, C., Wegerhoff, J. and
                                                                                                                                                                  1386 ArgAlaIleThrThrArgSerGlyGlnThrLeuSerLy8ValTrpTyrAsnCy8Pro 1404
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BIOLOGY OF VITRONECTINS AND THEIR RECEPTORS.: 45-52;
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protein_id="AAB09089.1"
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, TOIG of: u70136 check: 6448 from: 1 to: 5041
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Plannery, C.R., Hughes, C.E., Schumacher, B.L., Tudor, D., Aydelotte, M.B., Kuetner, K.B. and Caterson, B. Articular cartilage superficial zone protein (SZP) is homologous to megakaryocyte stimulating factor precursor and Is a multifunctional proteoglycem with potential growth-promoting, cytoprotective, and lubricating properties in cartilage metabolism Blochem. Blophys. Res. Commun. 254 (3), 535-541 (1999)
                                                                                          PKELAPTTTKKPTTTTKPTTTPKETAPTTPKEPAPTTPKKPAPTTPETPPTTSB
VSTPTTKRPTTIHKSPDSSTPELSABPTPKKLRIGSKRPKTTKPAATKEEMTT
AKDKTTERDLERTPETTTAPATKTFTPTTTTOVTSTTTOVTSFTPFFF
ITTLKTTLAPKVTTKKTTTTTSTHKTERTTEKTTERKTTERKTTPEKPKDFFF
PTSTKKEPKTHPROKPKTTTTTAPTPRKOTSTHPTSTAFFKEPKF
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Bos taurus superficial zone protein mRNA, partial cds.
AFOSSG218
                       TPTTPEKLAPTTPEKPAPTTPEBLAPTTPEBPTPTTPEBPAPTTPKAAAPNTPKBPAP
TTPKEPAPTTPKEPAPTTPKETAPTTPKGTAPTTLKEPAPTTPKKPAPKELAPTTKB
PTSTTSDKPAPTTPKGTAPTTPKEPAPTTPKBPAPTTPKGTAPTTLKBPAPTTPKKPA
                                                                                                                                                                                                                                                                     BGKTPPFKDSQYWRFTNDIKDAGYPKPIPKGPGGLTGQIVAALSTAKYKNWPBSVYPP
KRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGEMTQVRRRRPBRAIGPSQTHTIRIQY
SPARLAYQDKGVLHNBVKVSILWRGLPNVVTSAISLPNIRKPDGYDYYAPSKDQYYNI
3PAPTTPKKPAPTTPKEPAPTTPKBPAPTTTKKPAPTAPKBPAPTTPKBTAPTTPKK
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Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos
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    (bases 1 to 1855)
    Schumacher, B.L., Hughes, C.B., Kuettner, K.B., Caterson, B. and
Aydelotte, M.B.

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247 GAATAATTGACGTAAACTCAGAGAATGAGGATGGAGATGCTGCTGAAGGAGAAAAACCT
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Bovidae; Bovinae; Bos.

I (bases I to 1855)
Flannery, C.R., Hughes, C.E., Schumacher, B.L., Tudor, D., Aydelotte, M.B., Kuettner, K.E. and Caterson, B.

Articular cartilage superficial zone protein (SZP) is homologous to megakaryocyte stimulating factor precursor and is a multifunctional proteoglycan with potential growth-promoting, cytoprotective, and lubricating properties in cartilage metabolism

Blochem. Blophys. Res. Commun. 254 (3), 535-541 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="EppVpKgratnsQvTtPkpQkPTKapKKPTSTKKPTFPRVRFPK
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HMIPRPPVLTPIVIPGTEIIVRGPSQGFGINPMFSDETNLCNGRPVDGLTTLRNGTLV
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KCTCRRPAINYSVYGETAQVRRRFERAIGPSQVHTIRIHYTPVRVPYQDKGFLHNBV
KVSTLWRGLPNVVTSAISLPNIRKPDGYDYYALSKDQYYNIDVPSRTARAITTRSGQT
                                                                                Bos taurus superficial zone protein mRNA, partial cds.
APO56218
APO56218.1 GI:3676500
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Schumacher, B.L.
Direct Submission
Submitted (31-MAR-1998) Biochemistry Jelke 1306, Rush University,
1653 W. Congress Pkwy., Chicago, IL 60612, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunodetection and partial cDNA sequence of the proteoglycan, superficial zone protein, synthesized by cells lining synovial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chumacher, B.L., Hughes, C.B., Kuettner, K.E., Caterson, B. and
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/db_xref="GI:3676501"
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Matches:
Conservative:
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Indels:
Gaps:
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Pred. No.:
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JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL

PEATURES

CDS

1285

1305

BASE COUNT ORIGIN

AF056218

Query Match:

1265

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Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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TOIG of: af05621
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TOIG of: af05621
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-YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Human megakaryocyte вtimulating factor mRNA, complete cds.
U70136
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GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                              frame_plus_p2n model
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
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Stimulating Activity ractor that has megakaryocyce Colony Stimulating Activity 1991)

Labod 78 (Suppl. 1), 279 (1991)

E. (Dases 1 to 5041)

Stragerald, M., Fitz, L.J., Temple, P., Giannotti, J., Murtha, P., Fitzgerald, M., Scaltreto, J., Kelleher, K., Preisener, K., Kriz, R., Jacobs, K. and Turner, K.

A Comparison of Vitronectin and Megakaryocyte Stimulating Factor A Comparison of Vitronectin and Megakaryocyte Stimulating Factor In Dreisener, K.T., Rosenblatt, S., Kost, C., Wegerhoff, J. and Mosher, D.F. (Eds.);

Blocky of VITRONECTINS AND THEIR RECEPTORS.: 45-52;

Elsevier Science Publishers B.V. (1993)

S Turner, K.J., Ffitz, LJ., Temple, P., Jacobs, K., Larson, D., Leary, A.C., Kelleher, K., Giannotti, J., Calvetti, J., Pitzgerald, M., Kriz, M.-J., Perenz, C., Grobholz, J., Praser, H., Bean, K., Norton, C.R., Geener, T., Bhatia, S., Kriz, R., Hewick, R. and
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AETTTKGPALTTPKEPAPTTPKEPASTTPKEPTTTI KSAPTTPKEPAPTTKSAPTT
PKEPAPTTTKEPAPTTPKEPAPTTTKEPAPTTTKSAPTTPKEPAPTTPKR
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NGKPVDGLTTLRNGTLVAFRGHYFWMLSPFSPPSPARITBVWGIPSPIDTVFTRCNC
EGKTPFFKDSQYWRFTNDIKDAGYPKPIFKGPGGLTGQIVAALSTAKYKNWPESVYFF
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Submitted (09-SEP-1996) Genetics Institute, 87 CambridgePark Drive,
Cambridge, MA 02140, USA
Location/Qualifiers
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SPARLAYQDKGVLHNEVKVSILWRGLPNVVTSAISLPNIRKPDGYDYAAFSKDQYYNI
                                                                                                                                                                                                                                                                                  Purification, Biochemical Characterization, and Cloning of a Novel Megakaryocyte Stimulating Factor that has Megakaryocyte Colony
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mononuclear cells"
1 (bases 1 to 5041)
Turner,K.J., Fitz,L.J., Temple,P., Jacobs,K., Larson,D.,
Turner,A.C., Kelleher,K., Giannotti,J., Calvetti,J., Fitzgerald,M.
Kriz,M.-J., Perenz,C., Grobholz,J., Fraser, H., Bean,K.,
Norton,C.R., Gesner,T., Bhatla,S., Kriz,R., Hewick,R. and
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341	GlyproblaLeeThrThrProbysGlubroThrProThrThrProLysGlubroblaSer 360
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441	INSENSPEOALAPFOTHETHEPFOLYSGIUPFOALAPFOTHETHEPFOLYSGIUPFOTHE 460
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481	GluproAlaProThrAlaProLysLysBroAlaProThrThrProLysGlubroAlaPro 500
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581 1774	ProlysgluproalaproThrThrProlysgluproAlaProThrThrTyrLysLysPro 600
601	AlaProThrAlaProLysGluProAlaProThrThrProLysGluThrAlaProThrThr
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641 1954	AlaProThrThrProGluGluLeuAlaProThrThrProGluGluProThrProThrThr
661	ProGluGluProAlaProIhrThrProLysAlaAlaAlaProAsnThrProLysGluPro
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AACAATGCCA 3213

	2074 GCTCCAACTACCCCTAAGGAGCCTGCTCCAACTACCCTAAGGAGCCTGCTCCAACTACC 2133	ପ୍ର	3154 CCTAGAGTGAGAAAACCAAAGACGACACCAACTCCCCGGAAGATGACATCA
	ProbyeGluThrAlaProThrThrProLyeGlyThrAlaProThrThrLeuLyeGluPro 720 	که م م	1061 GluLeuAsnProThrSerArg1leAlaGluAlaMetLeuGlnThrThrThrA
	AlaProThrThrProLyBLyBProAlaProLyBGluLeuAlaBroThrThrThrLyBGlu 	& 8	1081 GInThrProAsnSerLysLeuvalGluvalAsnProLysSerGluAspAlaG
	ProThrSerThrThrSerAspiysProhlaProThrThrProLysGlyThrAlaProThr 76	& 8	1101 GluGlyGluThrProHisMetLeuLeuArgProHisValPheMetProGluV
	ThrProLygGluProAlaProThrThrProLygGluProAlaProThrThrProLygGly 7	ራ 8	1121 AspMetAspTyrLeuProArgValProAsnGlnGly1leIleIleAsnBroM
	ThralaproThrThrLeuLysGluProAlabroThrThrProLysLysProAlaProLys &	& 8	1141 AspGluthrAsnileCysAsnGlyLysProValAspGlyLeuthrThrLeuA
	GluLeuAlaProThrThrThrThysGlyProThrSerThrThrSerAspLysProAlaPro 82	ራ 8	1161 ThrLeuValAlaPheArgGlyHisTyrPheTrpMetLeuSerProPheSerP
	ThrThrProLygGluThrAlaProThrThrProLygGluProAlaProThrThrProLyg 84 ThrThrProLygGluThrProThrThrProLygGluProAlaProThrThrProLyg 84 **Chill	8 &	1181 ProAlaArgArgIleThrGluValTrpGlylleProSerProIleAspThrV
	AIRCACCIANGGANGACIGCIANCIANCIANCIAGAGGAGGAGGAGAGAGAGAGAGGAGGAGGAGGAGGAGG	ò 8	1201 ArgCygAgnCygGluGlyLygThrPhePhePhePheLygAgpSerGlnTyrTrpA
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	ThralaThrThrThrGluLygThrThrGluSerLygIleThrAlaThrThrThrGluVal 96	÷ 8	1301 ArgArgArgPheGluArgAlaIleGlyProSerGlnThrHisThrIleArgI
	ThrSerThrThrThrThrThrThrProPheLy81leThrThrLeuLy8ThrThrThr 9	8 8	1321 SerproalaargLeualaTyrGlnaapLysGlyvalLeuhísasnGluvalL
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o 5	CCIGANGAGACCOCTANACCCAGAGACACACACACTAGAICTAGAGACGAGAGACTCCTAGAAA ProGlalysProThrLysAlaProLysBySProThrSerThrLysLysBysDrygThrMet	ò 8	1381 FroSerArgThrAlaArgAlaIleThrThrArgSerGlyGlnThrLeuSerL
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;

Buyidae, Buvinae; Bos.

Bovidae, Bovinae; Bos.

I (bases I to 1855)

Flannery, C.R., Hughes, C.E., Schumacher, B.L., Tudor, D.,

Articular cartilage superficial zone protein (SZP) is homologous to megakaryocyte stimulating factor precursor and Is a multifunctional proteoglycan with potential growth-promoting, cytoprotective, and lubricating properties in cartilage metabolism

Lubricating properties in cartilage metabolism

Biochem. Biophys. Res. Commun. 254 (3), 535-541 (1999)
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KVSTLWRGLPNVVTSAISLPNIRKPDGYDYYALSKDQYYNIDVPSRTARAITTRSGQT
                                                                     05-MAR-1999
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HMIFRPPVLTPIVIPGTEIIVRGPSQGFGINPMFSDETNLCNGRPVDGLTTLRNGTLV
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Submitted (31-WAR-1998) Biochemistry Jelke 1306, Rush University,
1653 W. Congress Pkwy., Chicago, IL 60612, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                  Immunodetection and partial cDNA sequence of the proteoglycan, superficial zone protein, synthesized by cells lining synovial
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Bos taurus superficial zone protein mRNA, partial cds
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/protein_id="AABD13404.1"
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Matches:
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                                          to: 1855
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Schumacher, B.L.
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ProLygAspArgAlaThrAsnSerLysAlaThrThrProLysProGlnLysProThrLys
                           AlaProLysLysProThrSerThrLysLysProLysThrMetProArgValArgLysPro
                                                                                                                                                                                           LysThrThrProThrProArgLys---MetThrSerThrMetProGluLeuAsnProThr
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Submitted (09-SEP-1996) Genetics Institute, 87 CambridgePark Drive,
Cambridge, MA 02140, USA
Location/Qualifiers
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2 (Dases 1 to 5041)
Purberg, D.M., Fitz, L.J., Temple, P., Giannotti, J., Murtha, P., Fitzgerald, M., Scalreto, J., Kelleher, K., Preissner, K., Kriz, R., Jacobs, K. and Turner, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 5041)

Turner, K.J., Filzz, L.J., Temple, P., Jacobs, K., Larson, D., Leary, A.C., Kelleher, K., Giannotti, J., Calvetti, J., Fitzgerald, M., Kriz, M.-J., Perenz, C., Grobholz, J., Fraser, H., Bean, K., Norton, C.R., Gesner, T., Bhatia, S., Kriz, R., Hewick, R. and
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Turner, K.J., Fitz, L.J., Temple, P., Jacobs, K., Larson, D.,
Leary, A.C., Kelleher, K., Giannotti, J., Calvetti, J., Fitzgerald, M.,
Kriz, M.-J., Ferenz, C., Grobholz, J., Fraser, H., Bean, K.,
Norton, C.R., Gesner, T., Bhatia, S., Kriz, R., Hewick, R. and
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mononuclear cells"
AspTyrTyrAlaPheSerLysAspGlnTyrTyrAsnIleAspValProSerArgThrAla 1385
                                                                  1087 GATTACTATGCCCTTTCTAAAGATCAATACTATAACATCGACGTGCCAAGTAGGACAGCA 1146
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BIOLGY OF VITRONECTINS AND THEIR RECEPTORS.: 45-52;
Elsevier Science Publishers B.V. (1993)
                                                                                                                                     ArgAlaIleThrThrArgSerGlyGlnThrLeuSerLysValTrpTyrAsnCysPro 1404
                                                                                                                                                                                                        1147 AGAGCCATTACTACTCGTTCTGGGCAGACCTTATCCAATACCTGGTACAACTGTCCT 1203
                                                                                                                                                                                                                                                                                                                                                                                                      нSU70136
Human megakaryocyte stimulating factor mRNA, complete cds.
U70136
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/note="MSF"
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Butaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Butdaryota; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos. Bovidae; Bovi
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Bos taurus superficial zone protein mRNA, partial cds.
AF056218
AF056218.1 GI:3676500
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Immunodetection and partial cDNA sequence of the proteoglycan,
superficial zone protein, synthesized by cells lining synovial
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Schumacher, B.L., Hughes, C.E., Kuettner, K.E., Caterson, B. and
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DIKDAGYPKLISKGFGGLNGKIVAALSIAQYKSRPESVYFFKRGGSVQQYTYKQEPTO
KCTGRRPAINYSVYGETAQVRRRRFERAIGPSQVHTIRIHYTPVRVPYQDKGFLHNEV
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TTPTPPKTTTSAMPEPTPTSLPBAMLQTTTRPTPTPNSEIIDVNSENEDGDAAEGEKP
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AFRGHY FWMLTPFT PP.PPPRRITEVWGIPSPIDTVFTRCNCEGKTFFFKGSQYWRFTN
                                                                                            Direct Submission
Submitted (11-MAR-1998) Biochemistry Jelke 1306, Rush University,
1653 W. Congress Pkwy., Chicago, IL 60612, USA
Location/Qualifiers
1. 1855
/ Organism="Bos taurus"
/ Mol Lype="memory by 13"
/ db Xref="taxon:9913"
/ cell_type="chondrocyte"
/ tisue type="articular cartilage"
-1.1206
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product= superficial zone protein"
/protein_id="AAD13404.1"
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Matches:
Conservative:
Mismatches:
Indels:
   J. Orthop. Res. 17 (1), 110-120 (1999) 99171663
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Schumacher, B.L.
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37.048
22.228
0.548
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Best Local Similarity:
Query Match:
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277 TGT 1275
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